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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/081,876

02/20/2002

Mark Thomas Lavelle

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EXAMINER

SOBUTKA, PHILIP

ART UNIT

PAPER NUMBER

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/25/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/081,876

Applicant(s)

LAVELLE ET AL.

Examiner

Philip J. Sobutka

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 October 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4-8,9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-13 is/are allowed.
- 6) ☒ Claim(s) 4-8 and 14-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. The indicated allowability of claim 16 is withdrawn in view of the newly discovered reference(s) to Anderson. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 4-8, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg (US 6,686,901) in view of Davis et al (US 2003/0034959) and in view of Anderson (US 5,355,148).

Consider claim 16. Rosenberg teaches a wireless mouse configured to establish a link with a host computer, said mouse comprising:

a transceiver for transmitting data to and receiving data from a host transceiver unit, wherein said host transceiver unit is connected with said host (*Rosenberg, see figure 5, items 316, column 15, lines 15-30*);

a processor connected with said transceiver and configured to process data from said host and said wireless mouse (*Rosenberg figure 2, item 110*) ;

Note that Rosenberg also teaches a power circuit comprising batteries (*Rosenberg see figure 5, item 322, column 15, lines 3-7*)/

Rosenberg lacks a teaching of the processor (note that the processor is a computer readable media having instruction routines) regulating the power usage of said wireless mouse via:

monitoring the operational state of said wireless mouse , and

controlling the operation of said human interface device using said operational state of said wireless mouse, wherein controlling the operation of said wireless mouse comprises keeping the transceiver off during the periods where the transceiver is not exchanging data with said host transceiver unit.

Davis et al teaches monitoring activity of a wireless mouse and turning off the circuitry after a period of inactivity (*Davis see paragraph 47*).

It would have been obvious to one of ordinary skill in the art to modify Rosenberg to use the power down during inactivity control as taught by Davis in order to extend the life of the batteries. As to the limitation that the routines for controlling the operation of

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said input device comprise a routine for keeping the transceiver at a lowered power level during the periods where the transceiver is not exchanging data with said host transceiver unit, note that Rosenberg as modified above would keep the transceiver off when not exchanging data, which would of course be a lowered power level for the receiver.

Rosenberg also lacks a teaching of wherein said routines for controlling the operation of said mouse comprise a routine for adjusting the rate of data exchange between said device and said host transceiver unit to a higher rate when said device is transmitting data to said host transceiver unit, from a lower rate used for maintaining a synchronized link with said host transceiver unit.

Anderson teaches that the data rate should depend on the input by the user, to prevent wasting computing time by sending unneeded packets. (Anderson see especially column 12, lines 45-65). It would have been obvious to one of ordinary skill in the art to modify Rosenberg to adjust the data rate based on the amount of data needing to be sent in order to prevent wasting computing time by sending unneeded packets.

As to claim 4, Rosenberg in view of Davis and in view of Anderson as applied to claim 16 teaches powering down the transceiver and processor if the mouse remains in an idle state for more than a predetermined time period (*Note that Davis's power saving arrangement powers down after a period of inactivity, see Davis paragraph 47*).

As to claim 5, Rosenberg in view of Davis and in view of Anderson teach the wireless mouse of claim 4 wherein said routines for controlling the operation of said mouse comprise: a routine for powering up said processor and said transceiver in response to an input to said mouse, and a routine for re-establishing a link with said device (*Davis paragraph 47, note that of course the link would be re-established upon power up*).

As to claim 6 Rosenberg in view of Davis and in view of Anderson teach the wireless mouse of claim 16 wherein said power circuit comprises a voltage regulator to adjust the output voltage of said battery to a level desired for the operation of said processor (*Davis figure 4, item 78, paragraph 48*).

As to claim 7, note that the purpose of the voltage regulator is keep the voltage at a constant level, therefore the voltage regulator of Rosenberg in view of Davis and in view of Anderson would lower the voltage if it was too high coming from the supply.

As to claim 8, note that the purpose of the voltage regulator is keep the voltage at a constant level, therefore the voltage regulator of Rosenberg in view of Davis and in view of Anderson would boost the voltage if it was too low coming from the supply.

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5. Claims 14,15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenberg in view of Davis et al and in view of Anderson and in view of Bohn (US 2003/0006965).

Consider claim 14. Rosenberg in view of Davis and in view of Anderson as applied to claim 16 lack a teaching of a plurality of visual indicators connected with said processor and said power circuit, configured to display status information to an operator of said mouse.

Bohn teaches a mouse with a plurality of status indicators (*Bohn see paragraph 17*). Note that Bohn also teaches the status changing to indicate changed status, as well as turning off after a predetermined period (*Bohn see paragraphs 51, 59,60*). It would have been obvious to one of ordinary skill in the art to modify Rosenberg in view of Davis to include the status indicator light arrangement of Bohn in order to indicate the operations state of the device to the user as taught by Bohn.

As to claim 15, Rosenberg in view of Davis and in view of Anderson and Bohn as applied to claim 14 teach activating one of a plurality of said visual indicators when there is a change in said status information, and deactivating said same one visual indicators after a predetermined delay period (*Bohn see paragraphs 51, 59,60*).

***Allowable Subject Matter***

6. Claims 10-13 are allowed for the reasons presented in the previous action.

### **Response to Amendment**

7. Applicant's arguments with respect to claims 4-8, and 14-16 have been considered but are moot in view of the new ground(s) of rejection.

### **Conclusion**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J. Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from Monday - Friday, 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177/4711.

9. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

**CENTRALIZED DELIVERY POLICY:** For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

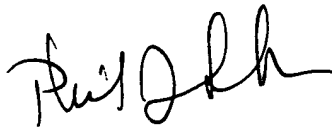
10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.



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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PHILIP J. SOBUTKA  
PATENT EXAMINER 1/20/07

Philip J Sobutka

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